

form granules. The enrobed oligomeric ester particles are then mixed with the granules to form the composition. An aqueous laundry bath using a concentration of 1500 ppm of the detergent composition of Example IX is used at 40° C. for washing fabrics and providing soil release benefits.

#### EXAMPLE X

A soil-releasing, fabric-softening granular detergent composition is as follows:

Ingredient	Wt. %
Anionic oligomeric esters of Example III*	2.0
C <sub>12</sub> -C <sub>13</sub> alcohol polyethoxylate (6.5)	20.0
Magnesium sulfate	1.0
Zeolite 4A, hydrating (1-10 micron size)	26.0
Sodium carbonate	18.3
Sodium bicarbonate	15.7
Fabric softening clay <sup>+</sup>	3.0
Fluorescent brightener	1.7
Minors (including brighteners, enzymes)	Balance to 100

\*Enrobed in PEG having an average M.W. 8,000 to provide protection from locally high concentrations of alkali.

<sup>+</sup> Preferred fabric softening clays are essentially pure, white, impalpable smectite/montmorillonites having cation exchange capacities about 100 meq/100 g obtainable from Southern Clay Co. (formerly Georgia Kaolin Co.). An aqueous laundry bath using a concentration of 1500 ppm of the detergent composition of Example X is used at 40° C. for washing fabrics and providing soil-release and fabric-softening benefits.

#### EXAMPLES XI-XVI

Liquid detergent compositions are formulated as follows:

Component	Wt. %					
	XI	XII	XIII	XIV	XV	XVI
Anionic oligomeric esters of Example IV*	1	2	0.3	0.5	0.5	3
C <sub>12</sub> linear alkylbenzene sulfonate, acid form	8	25	—	—	8	30
Sodium C <sub>12</sub> alkylethoxy (2) sulfate	12	—	23	18	12	—
C <sub>12</sub> -C <sub>13</sub> alcohol polyethoxylate (6.5)	5	6	—	5	2	—
C <sub>12</sub> -C <sub>14</sub> trimethylammonium chloride	0.5	—	—	—	0.5	—
n-dodecyl dimethylamine N-oxide	—	0.5	—	—	—	—
Sodium citrate	4	3	5	5	5	3
Lauric/myristic acids, 3:1 ratio	11	10	3	3	3	8
Tartrate monosuccinate/tartrate disuccinate, sodium salts, 80:20	—	—	5	5	5	—
Ethanol	9	—	—	—	—	—
Monoethanolamine	2	7	1.5	2	1.5	3
1,2-propylene glycol	4	11	4	4	4	15
Sodium cumene sulfonate	—	—	3	3	3	—
Minors and water, including enzymes, optical brighteners and perfume	Balance to 100					

\* Esters having higher ethoxylation, such as those of Example IV, are preferred herein when compared with lower ethoxylates, such as those of Example I.

The components are added together with continuous mixing to form the compositions, which may be used at concentrations ranging from 1200 to 2500 ppm in aqueous laundry baths at 20°-40° C. to wash and provide soil release benefits to fabrics, particularly those made of polyesters.

#### EXAMPLE XVII

A fabric softener base-composition is prepared from the following ingredients:

Ingredient	Wt. %
Ditallow dimethyl ammonium chloride	4.3
1-Methyl-1-tallowamidoethyl-2-tallowimidazolium methylsulfate (Varisoft 475) <sup>+</sup>	1.0
Ethanol	0.7
Isopropanol	0.1
Perfume	0.42
Dye	0.1
Minors*	up to 0.1
Water	Balance

\*preservative, NaCl, NaOH, H<sub>2</sub>SO<sub>4</sub>, antioxidant solution. To this base composition is added 1% by weight of the anionic oligomeric esters of Examples I, II, III or IV, providing combined fabric softening and soil-release treatment compositions for use in rinse-added mode.

<sup>+</sup> Sherex Co.

#### EXAMPLE XVIII

Fabric-conditioning sheets for use in a tumble-dryer are formulated as follows:

Ingredient	Wt. %	
	A	B
Anionic Oligomeric Esters of Example II	37.5	67.0
Fabric Softening Agents		
Ditallowdimethylammonium methylsulfate	11.25	—
Ditallow methylamine	11.25	—
Sorbitan monostearate	22.5	33.0
C <sub>16</sub> -C <sub>18</sub> Fatty Alcohol	12.5	—
Fabric softening clay <sup>a</sup>	5.0	—

<sup>a</sup>As in Example X.

Mixtures A and B are prepared and combined in 70:30 (wt%) proportion by heating together at 70° C. Nonwoven substrate, comprised of 70% 3-denier, 0.16-1.43 cm long rayon fibers with 30% polyvinyl acetate binder, is cut into 23 by 28 cm sheets. Each such sheet is treated as follows: slightly more than target coating weight, being about 2.5 grams of the A+B admixture per 23×28 cm sheet, is distributed on a heating plate and a 23×28 cm sheet of nonwoven cloth is placed over it. A small paint roller is used to impregnate the mixture into the interstices of the sheet. The impregnated sheet is removed from the hot plate and allowed to cool to room temperature whereby the mixture solidifies. Following solidification of the fabric conditioning component, the impregnated sheet is slit with a knife. (Conveniently, the 23×28 cm sheet is provided with 3 to 9 rectilinear slits extending along one dimension of the sheet, the slits being in substantially parallel relationship and extending to within about 2.5 cm from at least one edge of said dimension of the sheet). The width of an individual slit is about 0.5 cm.

Anionic oligomeric esters of the invention are applied, together with fabric softeners, to consumers' fabrics, by placing one or more of the impregnated sheets together with said fabrics in a tumble-dryer operating at 50°-80° C., to provide combined soil-release and fabric softening benefits thereto.

What is claimed is:

1. Oligomeric esters having at least one anionic substituent group, said esters having the formula